Met Office involved in research to revolutionise pollen forecasting

23 March 2016 - A team of researchers has been awarded a three-year grant by the Natural Environment Research Council (NERC) to improve pollen forecasts

A research team from the Met Office and the Universities of Bangor , Aberystwyth , Exeter and Worcester is giving hope to thousands of people in the UK who suffer from spring and summer allergies. The team of researchers has been awarded a three-year grant worth £1.2m by the Natural Environmental Research Council (NERC) to improve pollen forecasts using molecular genetics. It is envisaged that the new research will give more precise information to allergy sufferers about when and which species of grass pollens will affect them.

There is currently no easy way of distinguishing between the 150 species of grass, however understanding which species of grass pollens are in the air in high quantities at a particular time will allow people with hay fever and asthma to better manage their allergies and medication.

The team are aiming to revolutionise pollen forecasts by using DNA sequencing and the UK plant database at the National Botanic Garden of Wales .

Dr Rachel McInnes, Senior Climate Impacts Scientist at the Met Office Hadley Centre said: "Pollen from different grass species cannot be distinguished with current pollen monitoring techniques using optical microscopes. This new approach will extract DNA from pollen grains captured by our observing sites, and read the unique DNA 'barcode' to identify the individual species of grass. We can then study which species of grass are linked to the most severe health impacts to allergy sufferers, for example asthma attacks."

There are around 30 different types of pollen that cause hay fever and it is possible to be allergic to more than one type. Most people with hay fever are allergic to grass pollen, which is most common in late spring and early summer. The Met Office manages the only pollen count monitoring network in the UK and uses the information, weather data and expertise from organisations such as the National Pollen and Aerobiology Research Unit and PollenUK to produce forecasts that help support allergy and hay fever sufferers through the most difficult time of the year.

Current pollen forecasts can be found on the Met Office website from 23 March 2016 until the autumn.

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Pollen

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Links

Natural Environmental Research Council (NERC)

National Pollen and Aerobiological Unit

PollenUK

National Botanic Garden of Wales

Aberystwyth University

University of Exeter

Bangor University

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